

Reply to Office Action dated December 7, 2006
 Amendment dated May 7, 2007
 Replacement Sheet

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$$\begin{aligned} f_1(x_1(t), x_2(t), x_3(t), \dot{x}_1(t), \dot{x}_2(t), \dot{x}_3(t), p_1, p_2, p_3) &= x_1(t) - x_2(t) - x_3(t), \\ f_2(x_1(t), x_2(t), x_3(t), \dot{x}_1(t), \dot{x}_2(t), \dot{x}_3(t), p_1, p_2, p_3) &= p_1 \cdot x_1(t) + p_2 \cdot x_3(t), \\ f_3(x_1(t), x_2(t), x_3(t), \dot{x}_1(t), \dot{x}_2(t), \dot{x}_3(t), p_1, p_2, p_3) &= p_3 \cdot x_2(t) - p_2 \cdot x_3(t), \end{aligned}$$

$$\underline{p} = \begin{pmatrix} p_1 \\ p_2 \\ p_3 \end{pmatrix}$$

FIG. 1

$$\underline{A} = \begin{pmatrix} * & * & * \\ * & 0 & * \\ 0 & * & * \end{pmatrix}$$

$$T = \{(1,1), (2,3), (3,2)\}$$

FIG. 2

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$$\begin{aligned} f_1(x_1(t), x_2(t), x_3(t), p_1, p_2, p_3) &= x_1(t) - x_2(t) - x_3(t), \\ f_2(x_1(t), x_2(t), x_3(t), p_1, p_2, p_3) &= p_2 \cdot x_3(t), \\ f_3(x_1(t), x_2(t), x_3(t), p_1, p_2, p_3) &= -p_2 \cdot x_3(t), \end{aligned}$$

$$\underline{p} = \begin{pmatrix} p_1 \\ p_2 \\ p_3 \end{pmatrix}$$

FIG. 3

$$\underline{A} = \begin{pmatrix} * & * & * \\ 0 & 0 & * \\ 0 & 0 & * \end{pmatrix}$$

$$r = \{(1,1), (2,3)\}$$

$$z = \{(2,3)\}$$

$$s = \{(1,2)\}$$

FIG. 4

A row rank with the elements 2, 3 was found.

A column rank with the elements 1, 2 was found.

FIG. 5

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$$\begin{aligned}
 f_1(x_1(t), x_2(t), x_3(t), \dot{x}_1(t), \dot{x}_2(t), \dot{x}_3(t), p_1, p_2, p_3) &= x_1(t) - x_2(t) - x_3(t), \\
 f_2(x_1(t), x_2(t), x_3(t), \dot{x}_1(t), \dot{x}_2(t), \dot{x}_3(t), p_1, p_2, p_3) &= p_1 \cdot x_1(t) + p_2 \cdot x_3(t), \\
 f_3(x_1(t), x_2(t), x_3(t), \dot{x}_1(t), \dot{x}_2(t), \dot{x}_3(t), p_1, p_2, p_3) &= p_3 \cdot x_2(t) - p_2 \cdot x_3(t),
 \end{aligned}$$

$$\underline{p} = \begin{pmatrix} p_1 \\ p_2 \\ p_3 \end{pmatrix}$$

FIG. 1

$$\underline{A} = \begin{pmatrix} * & * & * \\ * & 0 & * \\ 0 & * & * \end{pmatrix}$$

FIG. 2

$$T = \{(1,1), (2,3), (3,2)\}$$

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$$f_1(x_1(t), x_2(t), x_3(t), p_1, p_2, p_3) = x_1(t) - x_2(t) - x_3(t),$$

$$f_2(x_1(t), x_2(t), x_3(t), p_1, p_2, p_3) = p_2 \cdot x_3(t),$$

$$f_3(x_1(t), x_2(t), x_3(t), p_1, p_2, p_3) = -p_2 \cdot x_3(t),$$

$$\underline{p} = \begin{pmatrix} p_1 \\ p_2 \\ p_3 \end{pmatrix}$$

FIG. 3

$$\underline{A} = \begin{pmatrix} * & * & * \\ \cancel{0} & 0 & * \\ 0 & \cancel{0} & * \end{pmatrix}$$

$$T = \{(1,1), (2,3)\}$$

$$Z = \{(2,3)\}$$

$$S = \{(1,2)\}$$

FIG. 4

A row rank with the elements 2, 3 was found.

A column rank with the elements 1, 2 was found.

FIG. 4

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